CLAIMS:

1. A disk drive comprising a disk engaging member connected to a drive shaft for engaging and rotating the disk (D) during operation and a tray (2) for supporting the disk when out of engagement with the disk engaging member, and further comprising a turning mechanism (3 to 8; 9 to 12) adapted to provide a pulse to the side of the disk resting on the tray and in a position outside its center so as to provide an upward and rotating movement to the disk in order to turn it over.

2. The disk drive of claim 1, wherein the tray (2) is of the drawer type and is displaceable between a closed position within a housing (1) of the disk drive and an open position projecting outside the housing, the turning mechanism (3 to 8; 9 to 12) being adapted to be activated only when the tray is in its open position.

3. The disk drive of claim 1 or 2, wherein the turning mechanism (3 to 8; 9 to 12) includes a pulse member (3; 9) that acts directly on the disk (D).

4. The disk drive of claim 3, wherein the turning mechanism (3 to 8) is pneumatic, the pulse member (3) being a nozzle adapted to direct a pressurized-gas pulse to the disk (D).

5. The disk drive of claim 4, comprising a pressurized-gas container (4) connected to the nozzle (3) and a valve (6) provided between the container and the nozzle and controlled by a control member (7).

6. The disk drive of claim 5, wherein the pressurized-gas container (4) is a pre-filled replaceable container, or a reusable container that is to be filled by a compressor unit or by a manual pump provided with the disk drive.

7. The disk drive of claim 5 or 6, wherein the tray (2) is displaceable, and the gas container (4) is connected to the nozzle (3) through a flexible line (5).

8. The disk drive of claim 3, wherein the pulse member (9) is a mechanical pulse member which is made to collide with the disk (D).

9. The disk drive of claim 8, wherein the turning mechanism (9 to 12) includes a spring mechanism (11, 12) for energizing the mechanical pulse member (9).

10. The disk drive of claim 2 or 9, wherein the spring mechanism (9 to 12) includes a mechanical spring (12) which is coupled to the tray (2) such that it is tensioned by a closing movement of the tray.

11. The disk drive of claim 8, wherein the turning mechanism includes an electro-mechanical assembly for energizing the mechanical pulse member, said electro-mechanical assembly preferably comprising a pulsed electromagnet adapted to control a plunger.

12. The disk drive of any one of claims 3 to 11, wherein the pulse member (3; 9) is positioned such that its pulse hits the disk (D) in at least one position, the effective point of action of which is located within ¼ of the disk's radius from the centre of the disk.

13. Turning mechanism presenting the features of the turning mechanism defined in any one of the preceding claims and being thus adapted to provide a pulse to the side of a disk is a position outside its center so as to provide an upward and rotating movement to the disk in order to turn it over, and thus constructed and evidently intended for use in the disk drive as claimed in any one of the preceding claims.

14. A method of turning a disk (D) positioned on a tray (2) in a disk drive, comprising the steps of:

freeing the space above the disk, if necessary,

providing an impulse to the disk in a position outside its center so as to turn the disk over and receive it on the tray again in an upside-down position.

15. The method of claim 14, wherein, in order to free the space above the disk (D), the tray (2) is moved into a position in which the disk is located outside a housing (1) of the disk drive before an impulse is exerted on the disk.

16. The method of claim 14 or 15, wherein the pulse is provided to the disk (D) in that a pressurized gas pulse is directed at the disk, for example from a pressurized-gas container (4).

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17. The method of claim 14 or 15, wherein the pulse is provided to the disk in that a mechanical pulse member (9) is made to collide with the disk.